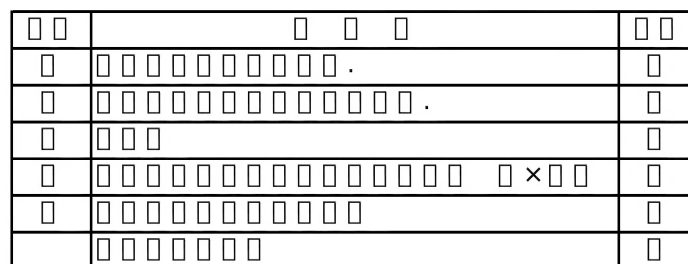
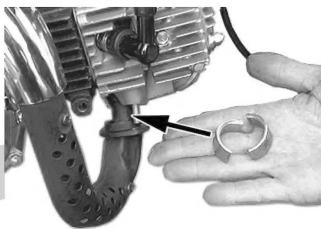
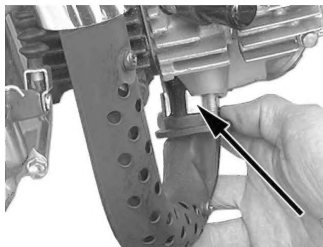




[illegible]

□ □ □ □ □ □ □ □ □ □ □ □ □ □



A close-up photograph showing a person's hand adjusting the tension of a timing belt. The hand is turning a circular tensioner pulley. The timing belt is a dark, ribbed rubber band that loops around several metal pulleys. The engine block is visible in the background, showing various mechanical components and bolts.

A detailed black and white photograph of a motorcycle's engine and carburetor assembly. The image shows the intricate mechanical components, including the carburetor, various pipes, and the engine block, highlighting the precision engineering of the machine.

[illegible]

QUESTION

A company has 10 employees. The number of hours each employee works per week is shown in the following table.

Employee	Hours per Week
1	40
2	38
3	42
4	36
5	44
6	39
7	41
8	37
9	43
10	35

The company wants to know if the average number of hours worked per week is more than 40 hours. They decide to perform a hypothesis test at the 5% level of significance.

(a) State the null and alternative hypotheses.

(b) Calculate the test statistic.

(c) Find the p-value.

(d) Draw a conclusion.

⚠ 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

[illegible]

